

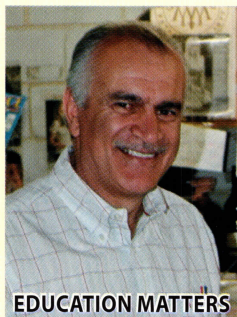
ORDER FOR NOW OR 2016 DELIVERY

Please forward to All Teachers of

General Science

Term 4, 2015

Adrian's Picks of the Month



EDUCATION MATTERS

I have always been fascinated by the effects of **coupling** different materials throughout history such as bronze, brass and steel in alloys.

Did you ever play with a **bimetallic strip** as a student? We had lot's of fun watching it bend over a bunsen flame. We would waste plenty of class time trying to out do each other. I remember those hot bizarre banana shapes to this day. I never knew the purpose of

the exercise until I started teaching the concept of the variable expansion of metals. Here are some products which clearly demonstrate the function of **bimetals** in controlling electric circuits etc.

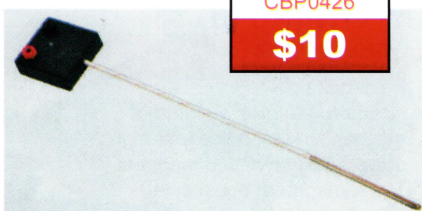
Ok have also included some **bimetallic strips** for those who want to play 'bend it' like I did when a high schooler.

And for good measure let's throw in a **Thermocouple** and a **Thermopile** as examples of other **bimetallic couplings**.

Hope you enjoy our picks in this brochure and really have fun with them.

BIMETALLIC THERMOCOUPLE

- Copper/constantan 305mm with 4mm terminals.
 - Produce an electric current simply by heating. Connect to a galvanometer.
- More sophisticated units are used for measuring temperature. This one is a good starter to explain the concept.
- See You Tube.



CBP0426

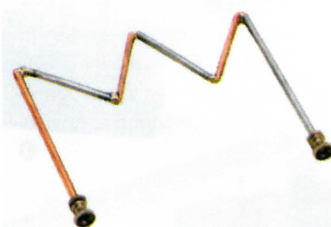
\$10

NEW

BIMETALLIC THERMOPILE

4 X Cu & Fe, Wires 130mm in length are twisted together to form junctions. In other words we have a series of thermocouples in use for generating thermoelectric current. Use with a galvanometer. Produces more current than a single thermocouple and is also a good starter to explain temperature measurement.

See You Tube



CBP0420

\$12

NEW

Best to buy from
Education Matters
for expert product support



ONLY FROM EDUCATION MATTERS

FUNCTIONAL BIMETALLIC STRIP

I like this elegant demo which uses the heat of a halogen lamp to bend the bimetal up to switch the bulb off. When the bimetal cools it resumes its straight shape and completes the circuit and the bulb lights up again and again and again.

Simple but brilliant demo, of a switching mechanism which is sure to get the message for functions of bimetals across.



CBP0403A

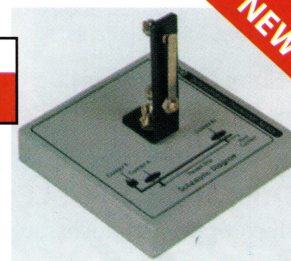
\$30

NEW

How cool(or is it hot) is this?

PRACTICAL BIMETALLIC THERMOSTAT

- This device automatically responds to temperature changes which activates a switch.
- Consists of a vertically bimetal strip with binding posts and adjustable contacts. Practical uses include controlling heating systems, aircons, fridges etc. Get this one for reinforcing the message.



CBP0403

\$30

NEW

SUPERIOR BIMETALLIC STRIPS(COMPOUND BARS)

HL0880001 \$6.70 150 x 12.5mm plain without handle

HL0881001 \$9.80 150 x 12.5mm with handle

High quality different coloured metals for easier observations, highly bendable



Education atters

1/31 Dalgety St, Oakleigh Vic. 3166

Ph: (03) 9568 6408 Fax: (03) 9568 1938

Email: sales@educationmatters.com.au

www.educationmatters.com.au

Planning your budget?

To receive your copy of our new product range email us and state

"NEW EXPANDED PRICE LIST"

for a quick reply sales@educationmatters.com.au

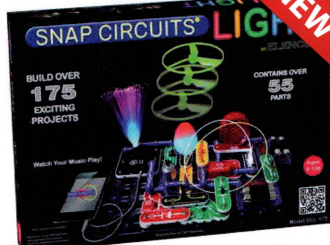
SNAP CIRCUIT "LIGHT"

- Infrared detector
- Strobe light
- Colour changing LED
- Glow in the dark fan
- Connect to iPod or MP3 player. Be amazed as light changes to beat of music

SCL175

\$135

55 PARTS 175 PROJECTS



NEW

ELECTRONIC SNAP-ON KITS

Stimulating & absorbing Snap - on kit to teach principles of electronics, Quick easy assembly, Increase knowledge design your own circuits

EM Best Seller

CAR & BOAT SNAP KIT

50 experiments

KJ8972

\$32

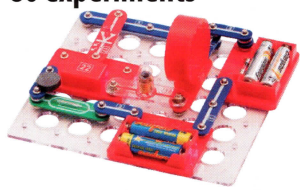


ELECTRONIC PROJECTS KIT

80 experiments

KJ8970

\$25



SNAP CIRCUITS EXTREME EXCEPTIONAL ELECTRONICS

- Indepth explanation of electronic components
- Contains over 80 parts to build 750 Action packed projects.
- Includes experiments in solar, electromagnetism, vibration switches, and 70 computer interfaced experiments.

SC750R

\$249



Snap together with ease! Super strong carry case



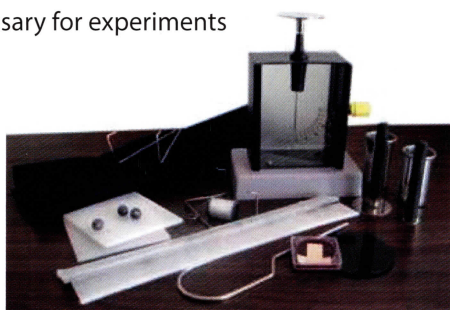
THE COMPLETE ELECTROSTATICS KIT

All components necessary for experiments in static electricity.

Ideal for Group Experiments.

PH0900

\$69



LIQUIFLY - RACE KIT

Huge kit for 2 to 6 students. Experiment with different size bottles, valve pressures and water levels to see who can fly the highest.

Includes

- 2 pumps,
- 6 fins,
- 2 hoses with connectors,
- 3 large bottles,
- 3 small bottles,
- 3 hard valves,
- 2 instruction sheets
- In storage crate!

Physics in motion!



LQ5020

\$129

BALLOON HELICOPTER

Energy conversion!



Set
of 10
\$36.00

EM005

\$3.80

STAR GLOBE

Identify stars & constellations in both hemispheres

7042

\$38

10cm dia



NEW

TIN CAN CABLE CAR

- Superb mechanical experiment using a soft drink can!
- Visually Impressive in the Classroom!

NEW

FSG3358

\$38



BALLOON RACER

- Watch Newtons third law of motion!



HJ2590

\$8

Set of 2

COLOUR DEFICIENCY TESTING BOOK



CM0299-001

\$37⁵⁰

100

images

DIGITAL LIGHTMETER

- A handy digital lightmeter
- Measure incident light in 4 ranges: 0.01 to 20,000 lux.
- Battery and case
- Cover included.

QM1587

\$59⁹⁵

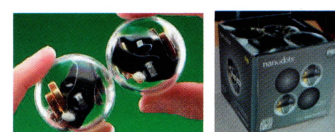


GYRO NANO MAGNETICS

GY901

\$54

- Each golf ball sized orb features an internal mechanism that holds four high powered Neodymium magnets.
- The transparent housing lets you see the internal mechanics of the Gyro as it reacts to magnetic fields.



MOTION & MAGNETISM

AIR POWER ENGINE CAR

- A pump up bar with a pressure meter is built into a car for easy operation. When compressed air is released car can travel 50m.
- Pressure meter and safety valve

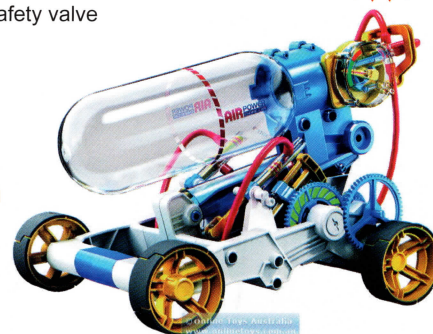
NEW

FS631

\$49

Physics in motion

Eco Friendly



FIRE UP YOUR STUDENTS WITH A DELUXE ERUPTING VOLCANO MODEL

Giant plastic model makes volcano demonstrations easy and mess-free.

Measures 28cms high
Includes Teacher's Guide.



LER2430

\$59

JUMBO VOLCANO MODEL

Excellent for Classroom demonstration.

View the path of the magma on its upward course.

- Hard Resin
- Key Card
- Unbreakable
- 40x40x18cm

Huge!



BD0082

\$145

VISUALLY STUNNING!

ROCKS & MINERALS NEW

Rock Set - Scale of Hardness - 9 specimens & Kit	EN1980-01	\$28.00
Rocks and Minerals Collection - 50 specimens	EN1976-01	\$100.00
Minerals Collection - 50 specimens	EN1975-01	\$120.00
Rocks Collection - 45 specimens	EN1977-01	\$100.00

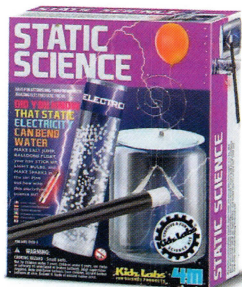


STATIC SCIENCE

Find out how static electricity can do tricks like bend the water
Contains all you need, to do six different experiments

FSG3354

\$32



Astounding Electrostatic tricks!



SIEVES (SET OF 8)

- 6 sieves +lid+base container
- Stainless mesh
- Ideal for separating a range of particles from fine sand, silt to coarse sand in the study composition of soil



B1089

\$99

ROMAN ARCH

- Force and geometry combine to build an ingenious structure

Amazing!

EMAR

\$49



PLANKTON NET KIT

Includes Plankton Identification Card.

Millions of Plankton live in ponds, lakes and pools. Take a closer look with the Plankton Net. Toss it into the water and sweep back and forth to collect Plankton. Lift the net to examine in transport bottle underneath.

EM5262

\$42



SEA SCOPE

This 4X telescope is great for viewing life in streams, ponds, lakes, tidal pools. Has removeable aqualite flashlight to light up dark underwater conditions plus built in ruler and thermometer.

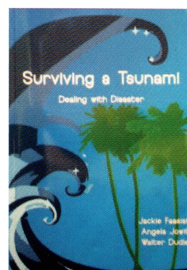
EM2525

\$46



SURVIVING TSUNAMI RESOURCE BOOK

Written following the devastating tsunami that hit Samoa on 29th September 2009. Vital information on earthquakes and tsunamis
Excellent Educational Resource Superb illustrations - 48 pages



RP01

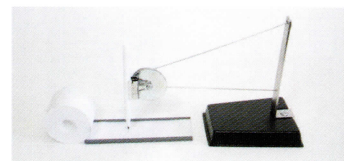
\$29

SEISMOGRAPH MODEL

Simulate an earthquake and measure.

1003112

\$89



SPARE PAPER ROLLS

1003112A

\$8

ANTIGRAVITY MAGNETIC LEVITATION

Experience the mystic forces of magnetism



**7 different projects
Visually amazing!**

FSG3299

\$32

LEYDEN JAR

- Shock your students again and again with this Leyden Jar.
- It comes with a durable inner and outer plate, a plastic dielectric, and directions.
- The inner plate has a hook and ball attached which makes it easy to charge.
- Use this equipment to duplicate many classic static electricity experiments.

PH0906

\$20

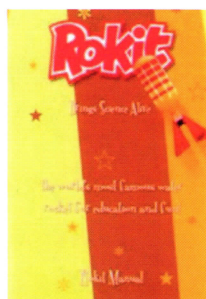


ROKIT EXPERIMENTS MANUAL

- 46 pages of experiments and activities
- Investigate speed, drag, launch height, trajectory and more

1212

\$25



ROKIT

- World's most famous water powered rocket.
- Demonstrates laws of motion.
- Bring science alive!!

1410

\$32



LASER LIGHT SHOW DMX Powered Laser Beam

- Unleash a barrage of atmosphere creating lasers. This model features an XLR out plug that allows you to daisy-chain multiple units together for full DMX controlled visceral ambience.

Specifications:

- Laser modules: Red & green
- Laser colour: Able to product red, green, yellow
- Scan system: High speed step motor drive and grating scale
- Sound control: Auto, DMX 512 (7 channels)
- Laser patterns:

More than 64 laser patterns



SL3451

\$209

FOG MACHINE 900W DMX Add an extra dimension to your laser show

- This unit gives you a range of control options which include the ability to set the machine to burst fog for specific durations at certain intervals as well as to manually trigger with the supplied remote control.
- The real standout feature is the support for DMX.
- Hook this up to your DMX512 controller and fog will waft out with the beats allowing total customisation.
- Remote included

Fog juice to suit AF1212 (available separately)- \$18.00



AF1213

\$139

DIGITAL LIGHTMETER

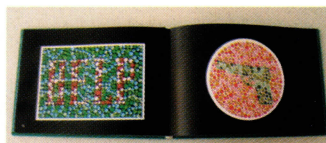
- A handy digital lightmeter
- Measure incident light in 4 ranges: 0.01 to 20,000 lux.
- Battery and case
- Cover included.



QM1587

\$59⁹⁵

COLOUR DEFICIENCY TESTING BOOK



CM0299-001

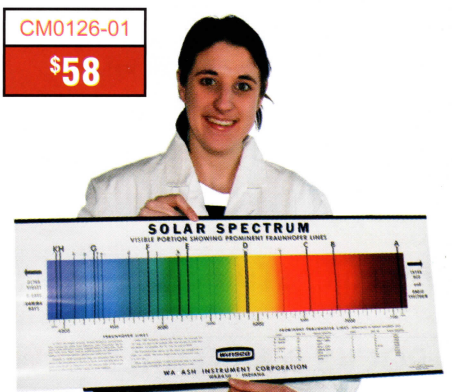
\$37⁵⁰

100 images

SOLAR SPECTRUM CHART

- Covers visible portion of the solar spectrum
- Shows the more prominent Fraunhofer lines
- Colourful and informative

71 x 28 cm



CM0126-01

\$58

SPECTROSCOPE

Separates light into its individual components. View light sources like fluro light, to prove they emit different types of light at the same time.

PH0598

\$25

EM Best Value



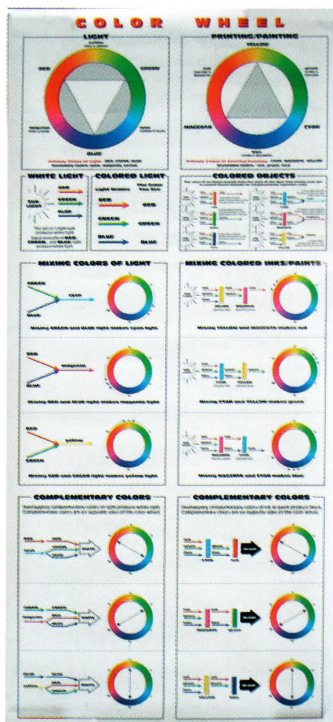
PLASTIC SPECTROSCOPE WAVELENGTH SCALE

COLOUR WHEEL WALL CHART

- Measures 46 x 100 cm
- Provide side by side comparison of additive (light) colour mixing with subtractive (pigment or paint) colour mixing using colour wheels.

CM0121-01

\$20



HYDRAPULT

- Make a working fluid powered hydraulic catapult
- Sturdy diecut plywood
- Learn about levers and simple machines, trajectories, how projectiles fly - test theories



6720

\$35

BALANCE 1000X0.01G!

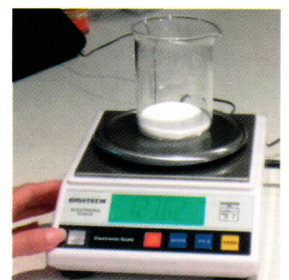
The complete multipurpose balance

Great capacity! Great resolution!

Great price

- Full size
- Breeze Break
- Tare Function
- Mains and Battery
- Built in bubble level to provide maximum accuracy

No longer will you have to worry by loss of capacity using the tare function!



EM7264

\$145

NEWTONS COLOUR DISC - HAND DRIVEN

PH882A

\$49

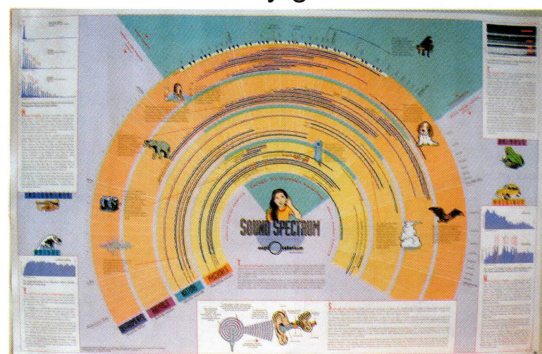
Mounted On metal stand



SOUND SPECTRUM CHART

- Pitch, tone, pressure

28 x 43 cms with study guide



CM0127

\$48

STUDENT MAGNETIC FIELD DEMONSTRATOR

- For individual Student use.
- Same as the above, about 1/4 of the size
- Magnets not included

PH0803

\$19



HORSESHOE MAGNET



PH0795B

\$10

IRON FILINGS

In clear durable plastic case
Convenient, No mess, No loose filings
Set of 5

LER0802

\$32



**TAKE THE MESS OUT OF
MAGNETISM** (Magnets not included)

FLOATING RING MAGNET

A great demonstration of magnetic fields

EM1000

\$19



HYPER COLOUR PUTTY

This amazing putty will bounce, stretch, snap, smash and change colour with heat. Available in 2 colours, yellow/red and pink



CH1000

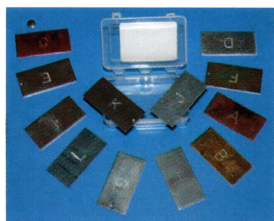
\$10

METAL MATERIAL TEST KIT

PH0798A

\$12

- Set of 12 metal strips, for magnetism work..
- Convenient and easy!



BAR MAGNETS

Bar Magnet (standard)	PH0798B	\$9.00
Bar Magnet (X-Strong,Alnico)	EM210	\$14.00

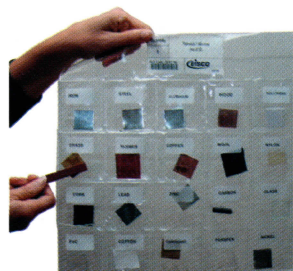
MATERIALS TESTING KIT

PH0798C

\$29

20 magnetic and non magnetic materials including iron, steel, aluminium, wood, polythene, brass, rubber, copper, glass, PVC, cotton, cardboard, perspex and nickel

Clearly displayed in plastic pockets.

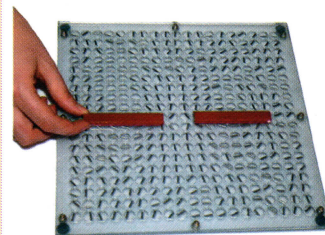


GIANT MAGNETIC FIELD DEMONSTRATOR

PH0802

\$39

- Clear plastic board of 98 chambers each containing a small iron rod.
- Conveniently displays configuration of a magnetic field.
- Can be used on overhead projector.

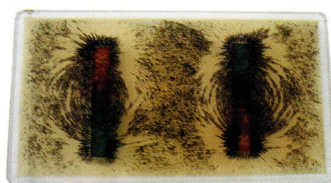


MAGNETISM PLATE

Iron filings suspended in oil
Horseshoe magnet included
ideal for magnetic pattern analysis

EM060301

\$30

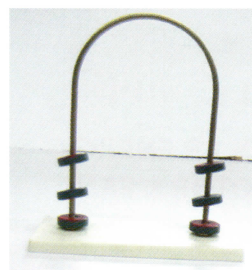


FLOATING RING MAGNETS

EM0513

\$18

A MAGNETISM ESSENTIAL



RARE EARTH MAGNETS

- Exceptionally strong
 - Made from Neodymium
- Iron Boron the Highest available magnetic energy of any material 28mmx19mm

LM1652

\$32



MAGNETIC MARBLES

51075

\$34

A jar of 100 marbles



MAGNETOIDS

Size: 60x80mm
A pair of super strong special magnets that are amazing. Made from Haematite, they are smooth and safe to handle.

EM0475-01

\$10 pair



MAGNETISM DEMO

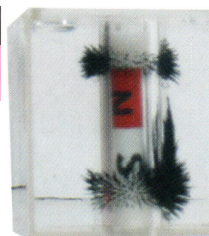
The unit is filled with iron filings and a special viscous fluid. When magnets are inserted the filings can be observed moving along lines of magnetic force.

PH0805

\$69

CUBE FORM

DELUXE



CLOUD CHAMBER

JS02

\$29

- Demonstrate the cloud tracks formed by ionizing radiation



SUPER SLINKY SPRING WITH STAND

- Extra length allows more time to observe wave motion.

- **Extra long**
- **20 cm high when compressed**

PH0709-N8

\$32



ELECTROSTATIC POMPON SET

PH0871C

\$29

When the plate is touched with an electrostatically charged rod, the cords become charged and spread out into a wide cone by mutual repulsion. Includes pair of pompoms 18. x 10.cms long



SUPER JUMBO SLINKY SPRINGS

- New super jumbo plastic slinky spring can be more easily reversed end to end without tangling
- Bring a new dimension to wave motion study with "Ginormous" slinky



BT123GN	Super Jumbo	175 x 180mm	\$32.00
BT123XL	Jumbo	155 x 150mm	\$28.00

Spectacular & Dramatic Demonstration

LIQUID LEVEL APPARATUS

To show that level of liquid in communicating vessels is constant irrespective of the size or shape of the vessels.



PH0200B

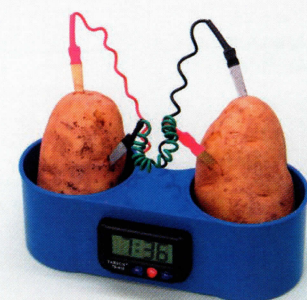
\$19

POTATO CLOCK

Watch chemical energy being converted to electrical energy

EM4190

\$27



14 IN 1 SOLAR ROBOT

- Amazing solar powered robot that transforms into 14 different models
- Powered by sun
- Two levels of building



FS615

\$49

VARIABLE TEACHING ELECTROMAGNET

To study the effect of current and number of coils on the strength of an electromagnet. Tapping at 100, 200, 300, 400, 500, 600 turns. The weights used are large paper clips. A variable D.C. low voltage supply is required. Graphs for superb visual understanding

- * Rotates
- * Current
- * Coils(Turns)
- * Weight

CBP0800C

\$49



NEW

Supplied with Spring balance & manual.

One school bought 10!

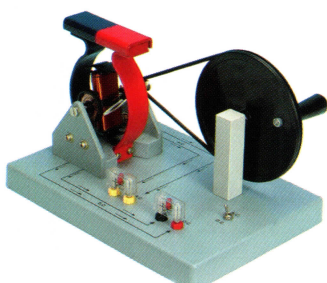
MOTOR GENERATOR DEMO ACTIVITY KIT

- Open format hand operated motor/generator.
- AC/DC
- Colour coded
- With lamp and 4mm outputs
- Mounted on baseboard

PH1245

\$79

Great value for smooth functioning unit

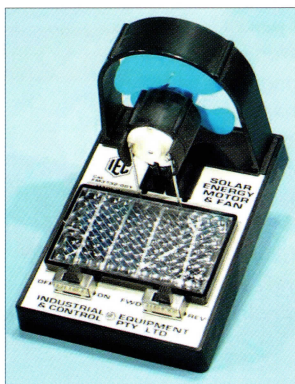


SOLAR ENERGY MOTOR & FAN

Rugged, reliable for classroom use. The fan runs well under direct sunlight and also from bright incandescent light.

EM3732-001

\$38



SOLAR MECHANICS

Experiment with clean solar energy powered by the sun

FSG3401

\$32

- Build a mini robot and watch it slide across the floor
- Construct a handy cooling fan for hot weather



ECO SCIENCE TOYS

Recycle to help save our earth. Use everyday waste to create fantastic science toys

FSG3287

\$26



THUNDER MAKER

Shake and creat thunder!



HJ0020

\$19

SOLAR ENERGY LAB

Consists of a solar cell with 4mm terminals and a high quality "test box" with motor, buzzer and LED. A very consistent and effective teaching package

PH1212

\$69



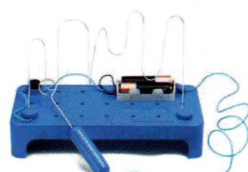
BUZZ WIRE MAKING KIT

Construct your own buzz wire kit and learn how to build an electric circuit. When complete you have a kit you can test your friend to see if they are telling the truth. Ask them difficult questions.

FSG3232

\$24

You can also play games and test people's skills.



EM Best Seller

HAND FREE MAGNIFIER

QM3513

\$15

- 11 cm dia viewer allows hands free operation
- Excellent optics
- Ideal for plastomounts & semi permanent displays



GIANT MIRROR Concave

HL0940

\$165

Giant Mirror Convex

610mm dia

HL0939

\$165



GIANT COMBI CONCAVE/CONVEX 300mm dia

HL0938

\$50



Real &
Virtual Images

5MP USB 2.0 DIGITAL MICROSCOPE WITH PROFESSIONAL STAND

QC3199

\$149

- Greater level of viewing accuracy & stability.
- Can be removed for the stand
- Excellent optics 5MP resolution
- It comes with a great piece of software for capturing 5MP (2592x1944) images.



COLOR PADDLES

Set Of 6

Transparent 6" paddles in six colors with three textures demonstrate the principles of color mixing.

LER0352

\$9



PRISM SET GLASS

Quality glass prisms housed in a wooden storage case

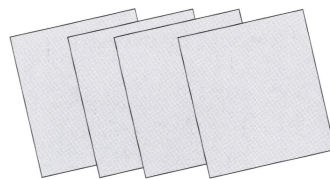
51234

\$59

Set of 7



DOUBLE SIDED UNBREAKABLE MIRRORS



50 x 75mm	HL095601	\$2.50
100 x 100mm	HL096601	\$4.00
100 x 150mm	HL097601	\$8.00

LENSES SET OF 6

50 mm dia with ground and polished faces

PH0538

\$24



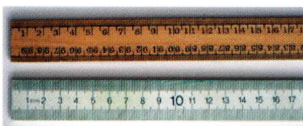
In
Storage
Case

METER RULERS

Wooden **ph0062 \$9.00**

Plastic **ex100 \$24.00**

Steel **ph0072c \$20.00**



TAPE MEASURE

Fireglass measuring tape is marked in cm and mm on one side and inches on reverse. Rolls into sturdy case.



Easy wind up!
Durable casing!

10 meters LER 0365 \$29.00

30 meters LER 0369 \$39.00

TAPE MEASURE

- Wind up, fibreglass filament
- Open case

50 m **12742 \$35.00**

100 m **14084 \$59.00**



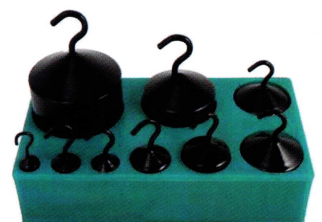
Open case
prevents
dirt and
sand being
trapped

HOOKED WEIGHT SET

- Cast iron weights with removable hook
- 9 weights from 1 kg to 10g

11240

\$79



METRIC TAPE MEASURES

LER0363

\$29

The 60" plastic tape in this set has inches on one side and centimeter/millimeter scale on the other.



Set of 10

NEWTON SPRING BALANCES \$10 each

Plastic, tubular Newton spring balances. Each range is color coded for convenience, and is scaled in both grams and Newton's.

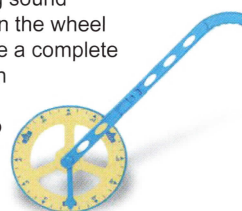


STANDARD TRUNDLE WHEEL

LER33203

\$39

- Sturdy plastic Trundle Wheels
- A clicking sound tells when the wheel has made a complete revolution
- Remove easy-grip handle



SUPERIOR TRUNDLE WHEEL

- Heavy duty with strong handle and rubber tyre
- Designed for durability and accuracy
- Super strong
- Superior quality
- Includes storage/carry bag

10214

\$65

Counter
clicks at
1 meter
intervals



STOPWATCH DIGITAL

accurate
Recessed buttons

XC0270

\$10



	Capacity	Newton	Sub-division
PH 0033A	100 gm	1 N	2gm.
PH 0033B	250 gm	2.5 N	5gm.
PH 0033C	500 gm/	5 N	10gm.
PH 0033D	1 Kg	10 N	20 gm.
PH 0033E	2 Kg	20 N	40 gm.
PH 0033F	3 Kg	30 N	60 gm.
PH 0033G	5 Kg	50 N	100 gm.

24 HOUR TIMER CLOCK

Counts up and down.

Y1023

\$29



WEATHER SCIENCE

- Learn the science behind various weather phenomenon
- Create a misty cloud, conduct experiments with acid rain, explore the impact of global warming
- Build a water recycling model

FSG3402
\$26



WEATHER STATION

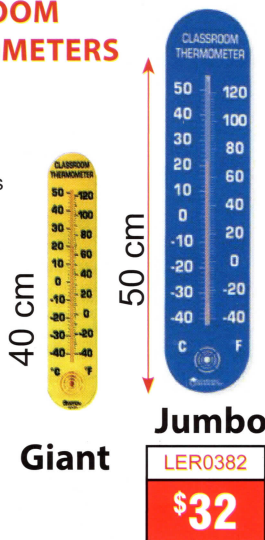
- Observe and record the weather with your own multifunctional weather station
- Features wind vane & anemometer, and a rain gauge
- Also experiment with the greenhouse effect and create a terrarium in a bottle

FSG3279
\$26



CLASSROOM THERMOMETERS

For indoor and outdoor use, these wall-mounted thermometers clearly give temperatures in both Celsius and Fahrenheit scales.



LER0380
\$25

Giant

LER0382
\$32

CONDUCTIVITY TESTER (LED)

Battery operated. Place the probes in liquids or against solids to test their conductivity. Cheap enough for class sets

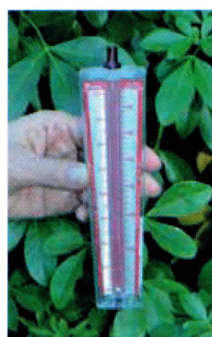
EM906
\$32



VENTURI WIND SPEED METER

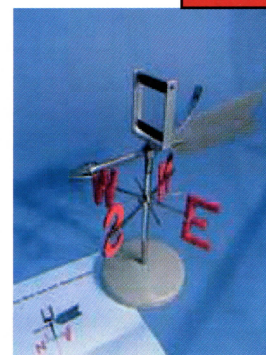
Anemometer

DL01
\$79



WIND SPEED VANE & DIRECTION

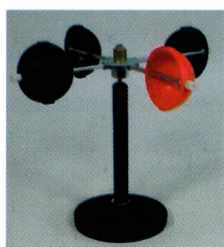
EM0204
\$50



WIND SPEED ANEMOMETER

- Windspeed Anemometer (Working Model).
- Consists 4 plastic cups (1 red)
- Mounted on low friction bearing.

1055043
\$39



WIND GAUGE

A direct reading wind gauge. Also measures wind direction.

E08651
\$39



VOLUME & DENSITY ANALYSIS KIT

ARCHIMEDES Principle
Immerse cubes and irregular solids to determine volume and weight loss.

EM019C
\$15



SPOUTING VESSEL PLASTIC

Excellent demonstration of water pressure and relation to depth.

MS0628
\$29



CLEAN WATER SCIENCE

- Help save the environment
- Learn the science of cleaning and reusing
- Dirty water
- Build your own water filtration and desalination
- Plant on your table top

FSG3281
\$25



ENVIRO BATTERY

This is one of the most unique and nonpolluting energy sources you could find on earth. Potatoe, salt and mud can be used to generate electricity. Be amazed how they can light up a bulb or a sound buzzer.

FSG3281
\$25



ORDER FOR NOW OR 2016 DELIVERY

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